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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

April 15, 1983

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RELEASED

B-208196

The Honorable James A. McClure
Chairman, Committee on Energy and
Natural Resources
United States Senate

The Honorable J. Bennett Johnston
Ranking Minority Member, Committee
on Energy and Natural Resources
United States Senate

Subject: Status of Strategic Petroleum Reserve Activities as of March 31, 1983 (GAO/RCED-83-136)

On March 25, 1982, the Senate Committee on Energy and Natural Resources requested that we report on a quarterly basis, through fiscal year 1985, on the administration's progress in filling the Strategic Petroleum Reserve (SPR) and in complying with the requirements of applicable law. This is the fourth such report issued pursuant to that request.

This report covers SPR activities which occurred during the second quarter of fiscal year 1983. It discusses the administration's fiscal year 1984 budget proposal and its progress in filling, developing, and operating the SPR. Specifically, it notes that:

--The Department of Energy (DOE) announced its intentions to fill the SPR at an average annual rate of 220,000 barrels per day for fiscal year 1983. However, the minimum legally required fill rate may be higher than 220,000 barrels per day.

--The administration's proposed fiscal year 1984 budget recommends slowing the SPR fill rates. The proposed fill rates in fiscal year 1984 and subsequent years would extend the time needed to store 500 million barrels and result in unfilled storage capacity. Alternatively, filling at the minimum legally required rate at today's oil prices could require funding above the budget request and could require DOE to obtain interim storage capacity.

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--DOE determined that by the end of fiscal year 1984, it may be able to temporarily increase the storage capacity at the SPR sites by about 17.9 million barrels for interim storage, if necessary.

--DOE reported that 18 million barrels were added to the SPR this quarter, for an average fill rate of about 200,000 barrels per day. This brings the total oil in the SPR to 311.8 million barrels as of March 31, 1983.

--DOE's storage capacity expansion program resulted in 23.5 million barrels of cavern volume being added to the Bryan Mound and West Hackberry sites during the quarter. This was about 4.1 million barrels above the scheduled amount.

--DOE estimated that payments during the quarter for oil acquisition and transportation were about $242 million, bringing the total payments in fiscal year 1983, as of March 31, 1983, to about $967 million. Approximately $2.9 billion remains available to pay for oil deliveries and for additional purchases in fiscal year 1983 and future fiscal years.

The following sections discuss these activities more fully. In addition, this report presents information on the efforts of the Defense Fuel Supply Center (DFSC)--DOE's purchasing agent for much of the SPR oil--to collect overpayments for oil received at the St. James terminal and DOE's actions regarding an oil leak at Bryan Mound.

OBJECTIVES, SCOPE, AND METHODOLOGY

This report is based, in part, on our review of the administration's fiscal year 1984 budget submittal and DOE program documents, publications, and studies. In addition, we interviewed managers and operating personnel responsible for planning and managing activities associated with developing and operating the SPR facilities. We also interviewed personnel from the private contractors that carry out most program activities. We obtained information on the availability and utilization of oil acquisition funds from both DOE and DFSC.

Our review was performed in accordance with generally accepted government auditing standards. We did not, however, verify the data related to oil procurement contracts, the volumes or quality of oil received by DOE, or the available

capacity of SPR storage facilities because of the limited time available to conduct the audit work for this report.

BACKGROUND

The Energy Policy and Conservation Act of 1975 (Public Law 94-163, Dec. 22, 1975) authorized up to a 1-billion-barrel SPR. To meet the act's goals, DOE is implementing a three-phase plan to store 750 million barrels of oil. Phase I of this plan consisted of acquiring, and modifying for oil storage, existing caverns in salt deposits at Bryan Mound, Texas, and Bayou Choctaw, Sulphur Mines, and West Hackberry, Louisiana, and a salt mine at Weeks Island, Louisiana, as well as construction of an oil-receiving terminal at St. James, Louisiana. Phase II involves creating new caverns at three of these sites through a leaching program. The leaching program entails pumping water into salt deposits and removing the salt-saturated water, or brine. DOE injects oil into the top of the cavern as the leaching process creates additional storage capacity. Phase III will involve creating additional capacity at two existing storage sites and developing a new site at Big Hill, Texas. As of March 31, 1983, DOE had acquired the land and initiated site preparation activities for Big Hill. However, the development schedule for Big Hill is uncertain because of proposals made in the administration's fiscal year 1984 budget.

FILLING AT 220,000 BARRELS PER DAY IN FISCAL YEAR 1983 MAY NOT BE ENOUGH

During the quarter, DOE announced its intentions to fill the SPR at an average annual rate of 220,000 barrels per day in fiscal year 1983. However, this fill rate may be less than the minimum rate established under the Energy Emergency Preparedness Act of 1982 (Public Law 97-229, Aug. 3, 1982).

The act requires a minimum average annual fill rate of 300,000 barrels per day until at least 500 million barrels of oil are stored. However, the act allows a lower rate if the President finds the 300,000-barrel-per-day rate not to be in the national interest for a particular fiscal year. On December 1, 1982, the President made such a finding for fiscal year 1983. With the finding, the act requires a minimum fill rate of at least 220,000 barrels per day, or the highest practicable fill rate achievable with available funds.

DOE may not be reaching the highest practicable fill rate achievable with available funds by filling at 220,000 barrels per day. On March 8, 1983, DOE's General Counsel issued an opinion which, in part, stated that

> "the minimum required fill rate for the SPR in fiscal year 1983 is the highest practicable rate which can be achieved utilizing all available appropriations, * * * even if the resulting fiscal year 1983 rate exceeds 220,000 barrels per day (b/d)."

In this regard the Secretary of Energy has stated that, at the oil price estimates contained in the administration's budget, and after taking into account advance purchases for fiscal year 1984 and the cost of interim storage, available funding would permit a fill rate of 255,000 barrels per day in fiscal year 1983. In addition, the Secretary pointed out that this rate could be even higher if oil prices continued to decline.[1]

However, DOE also believes that available funding alone does not establish the statutory minimum fill rate but that the rate must be "practicable". The March 8, 1983, DOE General Counsel opinion stated that the President is entitled to take into account, in determining fill rate, "programmatic requirements which are not compatible with maximizing SPR fill in a given fiscal year," including short-term adjustments in the pace of acquisition to take advantage of market trends. However, DOE has not yet determined the highest practicable fill rate.

While noting that the minimum rate may be higher, DOE would prefer not to fill at more than 220,000 barrels per day. In commenting on the DOE General Counsel's opinion on the required fill rate, the Secretary of Energy stated that increasing the fill rate now could unnecessarily increase the cost of the SPR if world oil prices continue to fall. Consequently, the Secretary stated that he would initiate discussions with appropriate congressional committees in an attempt to work out this matter. Under the act, DOE can seek congressional ratification of the 220,000-barrels-per-day rate by submitting a deferral, under the Impoundment Control Act, for available funds which would be unused this fiscal year. The Secretary has acknowledged the possibility of a deferral.

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[1]Using the price paid by DFSC in its last spot market purchase, available funds could allow for a fill rate of about 283,000 barrels per day for fiscal year 1983.

ADMINISTRATION PROPOSES REDUCING THE FILL RATE AFTER 1983

The administration's fiscal year 1984 budget proposes that the SPR fill rate be reduced in fiscal year 1984 and subsequent years. The administration has proposed:

--Lowering the fill rate from 220,000 barrels per day in fiscal year 1983 to about 145,000 barrels per day for fiscal year 1984 and using currently available funds to support this fill rate.

--Lowering the fill rate after fiscal year 1984 to 100,000 barrels per day. In this regard, the budget requested $583.1 million to order about 16 million barrels of oil for delivery in fiscal year 1985.

The justifications the administration cited for the reduced oil fill rates are that (1) it is necessary to restrain Federal spending to the maximum extent possible because of the economic problems that face the Nation and (2) considering the status of the SPR and the world oil market, the Nation is not as vulnerable to supply interruptions. If the proposal is adopted, however, reaching the 500-million-barrel level could be delayed by almost 2 years, and excess storage capacity could be available. If the proposal is not adopted, additional funding could be required to reach higher fill rates, and depending on the rate, interim storage could be needed.

Proposed rates would delay reaching 500 million barrels

The administration's proposed fill rates are significantly lower than the rates contemplated by the Energy Emergency Preparedness Act and could delay meeting the act's goal of 500 million barrels by almost 2 years. At a fill rate of 300,000 barrels per day beginning in fiscal year 1984, the 500-million-barrel level would be reached in January 1985. At 220,000 barrels a day, 500 million barrels would be reached in July 1985. Under the administration's proposal, the 500-million-barrel level would not be reached until March 1987. Figure 1 and table 1 in enclosure I provide further information on the effects of various fill rates on reaching 500 million barrels.

Excess storage capacity available under proposed rates

In addition to stretching out the fill schedule, the proposed rates could leave permanent storage capacity unfilled. If the current permanent storage capacity development schedule is

maintained, about 16.4 million barrels of available permanent storage capacity would be unused by the end of fiscal year 1984. This excess capacity could grow to 25 million barrels by the end of fiscal year 1985 and 53.9 million barrels in fiscal year 1986. Table 1 provides further information regarding excess capacity.

Additional funding needed for higher fill rates

Although the administration proposed lowering the SPR fill rate in fiscal year 1984, there appears to be a considerable amount of congressional concern that a higher fill rate be maintained. For example, in passing the first concurrent Fiscal Year 1984 Budget Resolution (House Concurrent Resolution 91, Mar. 23, 1983), the House of Representatives included $1.9 billion for oil acquisition funds in fiscal year 1984. Funding at this level, when combined with DOE's anticipated carryover of currently available funds, could support a fill rate of about 254,000 barrels per day in fiscal year 1984.[2]

In order to achieve a fill rate of 220,000 barrels per day in fiscal year 1984, an appropriation of about $1.5 billion could be needed. The 300,000 barrels per day fill rate could require fiscal year 1984 appropriations of about $2.5 billion. Table 2 shows the funding needed to reach different fill rates.

Interim storage capacity needed to achieve higher fill rates

The Energy Emergency Preparedness Act authorizes DOE to acquire interim storage capacity to meet the required SPR fill rates. The act allows DOE to use oil acquisition and transportation funds to acquire interim storage.

While interim storage is authorized, DOE does not expect to use interim storage in fiscal year 1983 because permanent storage capacity is expected to be adequate to accommodate the administration's planned fill rate. In this regard, as mentioned earlier, filling at the administration's proposed rate in fiscal year 1984 could result in excess permanent storage capacity. (See table 1 for further information on excess capacity.)

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[2]This assumes that oil and transportation costs are stable at $30 per barrel. The figures also assume a fiscal year 1983 fill rate of 220,000 barrels per day and allow for funding 6 months of advanced fiscal year 1985 purchases at a rate of 220,000 barrels per day.

However, at higher rates, such as 220,000 barrels per day after fiscal year 1983, interim storage could be needed. For example, 11 million barrels would be needed in fiscal year 1984 and 27 million barrels in fiscal year 1985 to handle the 220,000-barrel-per-day rate assuming the current SPR expansion plans are followed. Thus, the necessity for DOE to acquire interim storage capacity depends on the future fill rates. DOE's current permanent storage capacity expansion plan allows for fill rates of about 220,000, 190,000, and 124,000 barrels per day in fiscal years 1983, 1984, and 1985, respectively. Higher fill rates would involve obtaining interim storage capacity either by making modifications to capacity available at the SPR sites or by contracting for privately owned storage space.

During the quarter, DOE began examining alternatives for obtaining interim storage capacity. DOE has determined that by the end of fiscal year 1983, about 3.9 million barrels of additional storage capacity may be available, on a temporary basis, by lowering the level of brine in the bottom of completed Phase II caverns. Brine is kept in the bottom of the caverns after they are filled so that pressure which builds up in the caverns due to temperature expansion and cavern closure over the 20-year cavern life, can be reduced through the removal of brine rather than oil. DOE estimated that an additional 4 million barrels of oil could be stored by lowering the brine level in eight other caverns during fiscal year 1984. According to DOE, this method of interim storage is very inexpensive since it would involve only minor electrical costs for the additional oil fill and brine disposal.

DOE also believes that one of the caverns at Bayou Choctaw, which existed when it acquired the site, may be acceptable for interim storage in fiscal year 1984 even though the cavern did not meet the criteria for a permanent storage facility. In March 1983, DOE decided to proceed with activities necessary for determining if the 10-million barrel cavern can be used to store oil on a temporary basis. Further testing of the cavern is required, however, before a final decision can be made. If tests are successful another well to the cavern will be drilled, and the required pipes, dikes, and instruments will be installed. This work is expected to be completed by February 1984. DOE's initial estimate is that the work will cost about $7.5 million and that the cavern could be used for up to 3 years. Thus, the cost of storing oil in this cavern would be about 25 cents per barrel per year. Other interim storage options DOE is considering would require contracting for private storage. DOE estimates that private storage capacity would cost about $3.60 per barrel per year.

DOE has not pursued filling at rates in excess of the available permanent SPR capacity because of the costs associated with contracting for interim storage. The availability of SPR-owned interim storage capacity and its relatively low cost could facilitate achieving higher fill rates. If the 3.9 million barrels of interim storage capacity in completed Phase II caverns were used this year, the average fill rate could be increased by about 10,000 barrels per day. Further, the use of the 14 million barrels of interim storage which may be available in fiscal year 1984, along with the planned permanent storage space, could allow for a fill rate of about 228,000 barrels per day.

SPR FILL UPDATE

DOE reported that during the quarter ended March 31, 1983, 18 million barrels of oil were added to the SPR for an average fill rate of about 200,000 barrels per day. During fiscal year 1983, 33.9 million barrels, or 186,000 barrels per day, were delivered to the SPR. This brings total oil deliveries to the SPR to 311.8 million barrels as of March 31, 1983. To achieve the 220,000-barrels-per-day fill rate for fiscal year 1983, DOE would need to fill at an average rate of about 254,000 barrels per day for the remainder of the year.

Deliveries under DOE's two contracts with Petroleos Mejicanos (PEMEX), the Mexican State oil company, accounted for 16.1 million barrels of sour crude, or about 89 percent of the oil deliveries this quarter. The remaining 1.9 million barrels, or about 11 percent, were sweet crudes delivered under long-term contracts awarded by DFSC.[3] Oil deliveries during the next quarter will be primarily from the PEMEX contracts and awards under DFSC's open, continuous solicitation. On March 22, 1983, DFSC awarded a contract for 2 million barrels to be delivered next quarter. This was the first award made by DFSC under the open, continuous solicitation since August 1982. DFSC expects to make additional awards under the open, continuous solicitation during the next quarter. Figures 1 and 2 and tables 3 through 6 provide further information on SPR fill activities.

At the end of the last quarter, DOE decided to use Sulphur Mines cavern 2.4.5 for storing about 13.1 million barrels of oil. A layer of nitrogen has been placed above the oil to prevent oil loss through a small leak at the top of the cavern.

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[3]Sweet crude for the SPR has a maximum sulfur content of 0.5 percent; sour crude has a sulfur content over 0.5 percent.

Oil fill of the cavern began in January 1983, and as of March 31, 1983, it contained about 6 million barrels of oil. No problems have been reported on the oil fill at this cavern.

DEVELOPING PERMANENT STORAGE CAPACITY

During the quarter, DOE's program to develop permanent storage capacity proceeded at three sites--Bayou Choctaw, Bryan Mound, and West Hackberry. In total, the amount of capacity developed, and the amount of oil stored, exceeded the baseline schedules. As can be seen in table 7, activities at Bryan Mound were largely ahead of the baseline schedules and were making up for activities at West Hackberry which were behind the baseline schedules.

While the overall leaching program was on schedule, an oil spill occurred during the quarter which delayed leaching at Bryan Mound. On March 11, 1983, during the final fill operations on one of the caverns, oil spilled into the brine pond.[4] According to DOE, the pipe which carries the brine out of the cavern (called a stringer line) broke off while brine was being pumped into the brine pond. This resulted in about 12,000 barrels of oil being pumped into the pond. The oil overflowed the oil/brine separater and about 1,600 barrels spilled into the adjacent lake. Cleanup operations were undertaken and the oil in the brine pond and lake were recovered and returned to storage. Leaching operations were suspended for more than 4 days while the cleanup efforts were carried out.

Another unrelated accident occurred on March 12, 1983, when an oil receiving tank at Bryan Mound was overfilled and about 500 barrels of oil spilled into the containment dike surrounding the tank. The oil spill cleanup operations were complete by the end of the quarter. DOE estimated that recovery and cleanup operations associated with the two accidents cost about $200,000.

Activities associated with the new Big Hill site continued during the quarter. Contracts were signed for site preparation and drilling operations. The site preparation activities began in February 1983. The drilling operations on 10 wells are expected to start in the next quarter. However, the development

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[4]The salt-saturated water (brine) is pumped from the cavern to a cement-lined pond where undissolved matter settles out and any oil removed with the brine is recovered. The brine is then piped to the Gulf of Mexico for disposal.

schedule for Big Hill is uncertain because of proposals made in the administration's recent budget submittal.

Delay proposed in developing the new Big Hill site

The administration has proposed slowing the completion of the 140-million-barrel Big Hill storage site. The administration deferred $57.4 million of fiscal year 1983 funds to fiscal year 1984 and did not request fiscal year 1984 funds for Big Hill in the budget. The deferral would have postponed construction-related activities at Big Hill until the administration reevaluated the Big Hill development schedule as part of the fiscal year 1985 budget process.

However, on March 10, 1983, the House of Representatives disapproved the deferral, thereby requiring that the deferred funds be made available for obligation in fiscal year 1983. As of March 31, 1983, DOE had not used the funds, but was studying options for their use in view of the funding uncertainties for fiscal year 1984. As noted above, the budget did not request fiscal year 1984 funding for continued development of Big Hill. However, DOE has estimated that in order to complete the SPR by 1989 as previously scheduled, it would need $370 million for these activities in fiscal year 1984.

STATUS OF SPR FUNDING

DOE made payments of about $242 million during the quarter for oil deliveries and transportation. This brought the total spent to about $967 million for the fiscal year. The unpaid obligations as of March 31, 1983, were estimated to be about $1.3 billion. Of the $3.9 billion available for fiscal year 1983, about $1.6 billion in oil acquisition funds remains unobligated by DOE. Table 8 provides further information on the status of SPR funding.

RECOVERY OF OVERPAYMENTS FOR OIL DELIVERED TO ST. JAMES TERMINAL

DFSC continued its efforts during the quarter to collect overpayments for oil delivered to the St. James terminal between September 1980 and November 1981. During that period the mathematical tables used to convert the levels of crude oil in storage tanks at the terminal into an equivalent number of barrels were incorrect. According to DFSC, this caused overpayments of about $13.8 million to 12 suppliers and underpayments of about $48,000 to 2 suppliers. The underpayments have been satisfied. During the quarter, DFSC collected an overpayment of $150,448.20 plus $8,891.67 in interest from Chevron, U.S.A., Inc. As of

March 31, 1983, three of the overpayments totalling about $1.3 million had been recovered. The status of DFSC's efforts to collect the overpayments is shown in table 9.

REPORT ON THE OIL LEAK AT BRYAN MOUND

On March 30, 1983, a technical assessment team reported on its investigation of an underground well casing leak at the Bryan Mound site. The team concluded that corrosion of the casing in a well leading to cavern No. 4 allowed a loss of 40,000 (±2,000)[5] barrels of oil. Only 268 barrels of oil were recovered. The remaining oil is believed to be trapped in the rock above the salt deposit surrounding the cavern. Recovery efforts have been suspended and the cavern was returned to service on March 9, 1983. In addition to describing the circumstances surrounding the leak, the report contains a number of recommendations to correct the existing problem and to prevent future incidents of this nature. These include:

--Permanently plugging and abandoning the well which leaked and modifying two other wells to service the cavern.

--Giving increased attention to the pressures of filled caverns.

--Injecting nitrogen, which is a highly sensitive leak monitor compared with oil, into each of the Phase I caverns.

--Taking corrective action on two specific wells identified as having a high probability of failure.

Since the report was issued on March 30, 1983, DOE has not as yet decided on the actions to be taken. We will provide information on DOE's decisions on these matters in future quarterly reports.

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[5]The report states that losses cannot be precisely determined because the tests used to determine the loss have a margin of error.

In order to meet the required time frames of this report, we did not obtain official agency comments. However, we provided DOE and DFSC program officials a draft of this report and discussed its factual accuracy with them. Based on their comments, we made appropriate revisions. We plan no further distribution of this report until 7 days after its issue date unless you publicly announce its contents earlier. At that time, we will send copies to the Secretary of Energy and other interested parties and make copies available to others upon request.

J. Dexter Peach
Director

Enclosure

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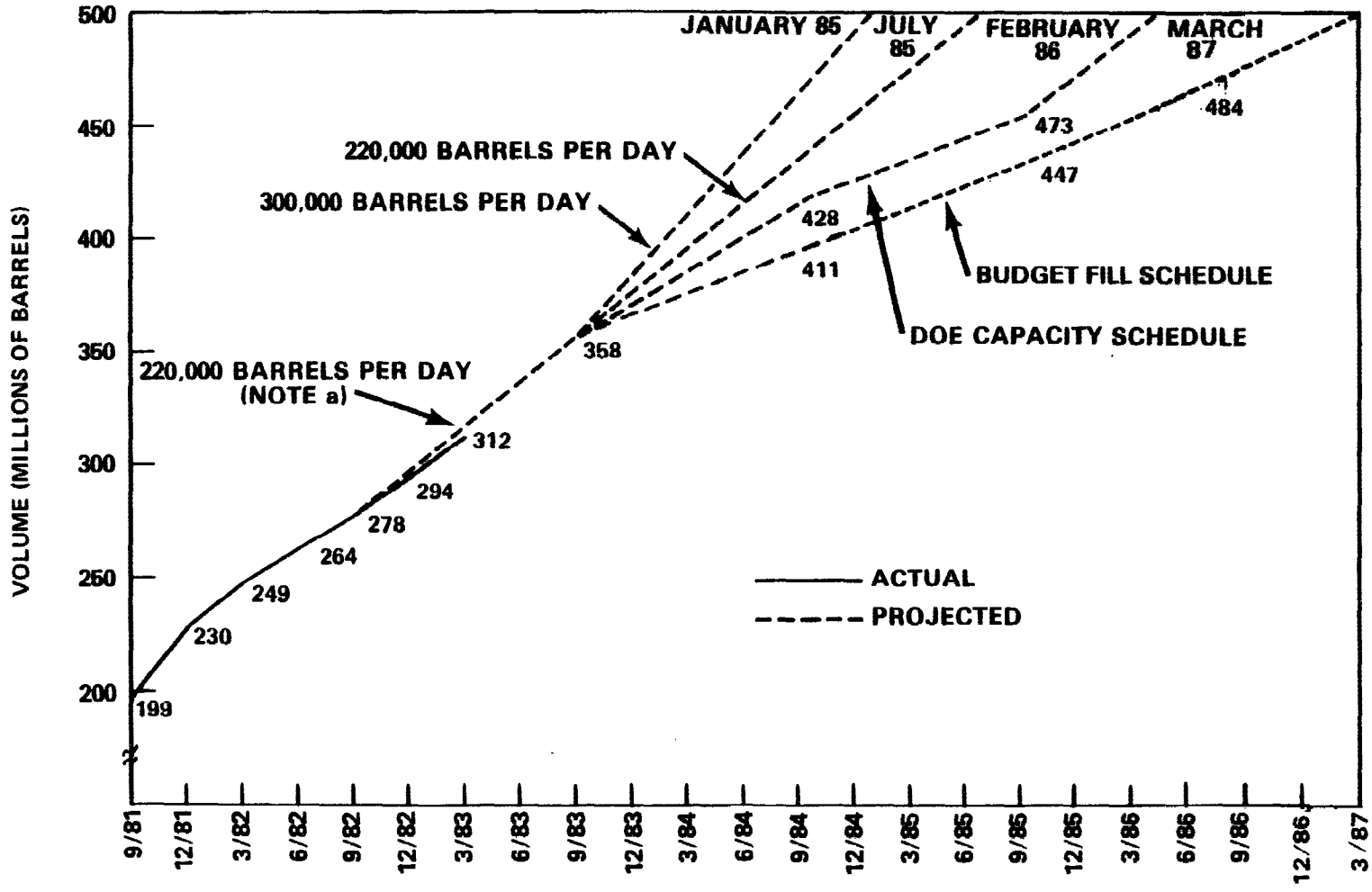
ENCLOSURE

FIGURE 1: COMPARISON OF FILL RATES IN REACHING 500 MILLION BARRELS AND THE POTENTIAL NEED FOR ADDITIONAL STORAGE



a/ THE PRESIDENT HAS FOUND THAT THE 300,000-BARREL-PER-DAY RATE IS NOT IN THE NATIONAL INTEREST FOR FISCAL YEAR 1983.

ENCLOSURE 1

Table 1
Comparison of Fill
Schedules and Storage Requirements
In Reaching 500 Million
Barrels

		300,000 barrels per day		220,000 barrels per day		Administration proposal	
Fiscal year	Storage capacity (note a)	Oil volume (note b)	Additional storage needed (note c)	Oil volume (note b)	Additional storage needed (note c)	Oil volume	Excess storage capacity
1983	358.2						
1984	427.5	467.7	40.2	438.5	11.0	411.1	(16.4)
1985	472.6	500.0	27.4	500.0	27.4	447.6	(25.0)
1986	538					484.1	(53.9)
1987	598					500.0	(98.0)

a/Storage capacity reflects changes to DOE's expansion plan in fiscal years 1983, 1984 and 1985 furnished by DOE officials. Fiscal years 1986 and 1987 have not been changed from earlier plans, because, according to DOE, of the uncertainty over the development schedule for the Big Hill site.

b/The act requires a minimum average annual fill rate of 300,000 barrels per day until at least 500 million barrels of oil are stored. However, the act allows a lower rate if the President finds the 300,000-barrel-per-day rate not to be in the national interest for a particular fiscal year. On December 1, 1982, the President made such a finding for fiscal year 1983. With the finding, the act requires a minimum fill rate of at least 220,000 barrels per day, or the highest practicable fill rate achievable with available funds.

c/DOE has determined that about 17.9 million barrels of interim storage space may become available at SPR sites by the end of fiscal year 1984. Additional storage needed above that amount could require contracting for privately owned space.

SOURCE: DOE and GAO calculations.

Table 2
Funding Needed to Reach Differing
Fiscal Year 1984 Fill Rates (note a)

Fill rate	Oil delivered (millions of barrels)	Additional funding needed (note b) (billions)
Permanent capacity (190,000 barrels per day)	69.3	$1.2
Permanent capacity and available interim storage (239,000 barrels per day)	87.2	1.7
220,000-barrels-per-day requirement	80.3	1.5
300,000-barrels-per-day requirement	109.5	c/ 2.5
House budget resolution (note d) (254,000 barrels per day)	92.7	e/ 1.9

a/Calculations assume that oil and transportation costs are stable at $30 per barrel and the SPR is filled at 220,000 barrels per day in fiscal year 1983. In addition, the calculation allows for purchases in fiscal year 1984 of oil to be delivered in the first 6 months of fiscal year 1985 at a 220,000-barrel-per-day rate.

b/Figures assume that DOE will have about $2.1 billion of fiscal year 1983 funding available for oil deliveries in fiscal year 1984.

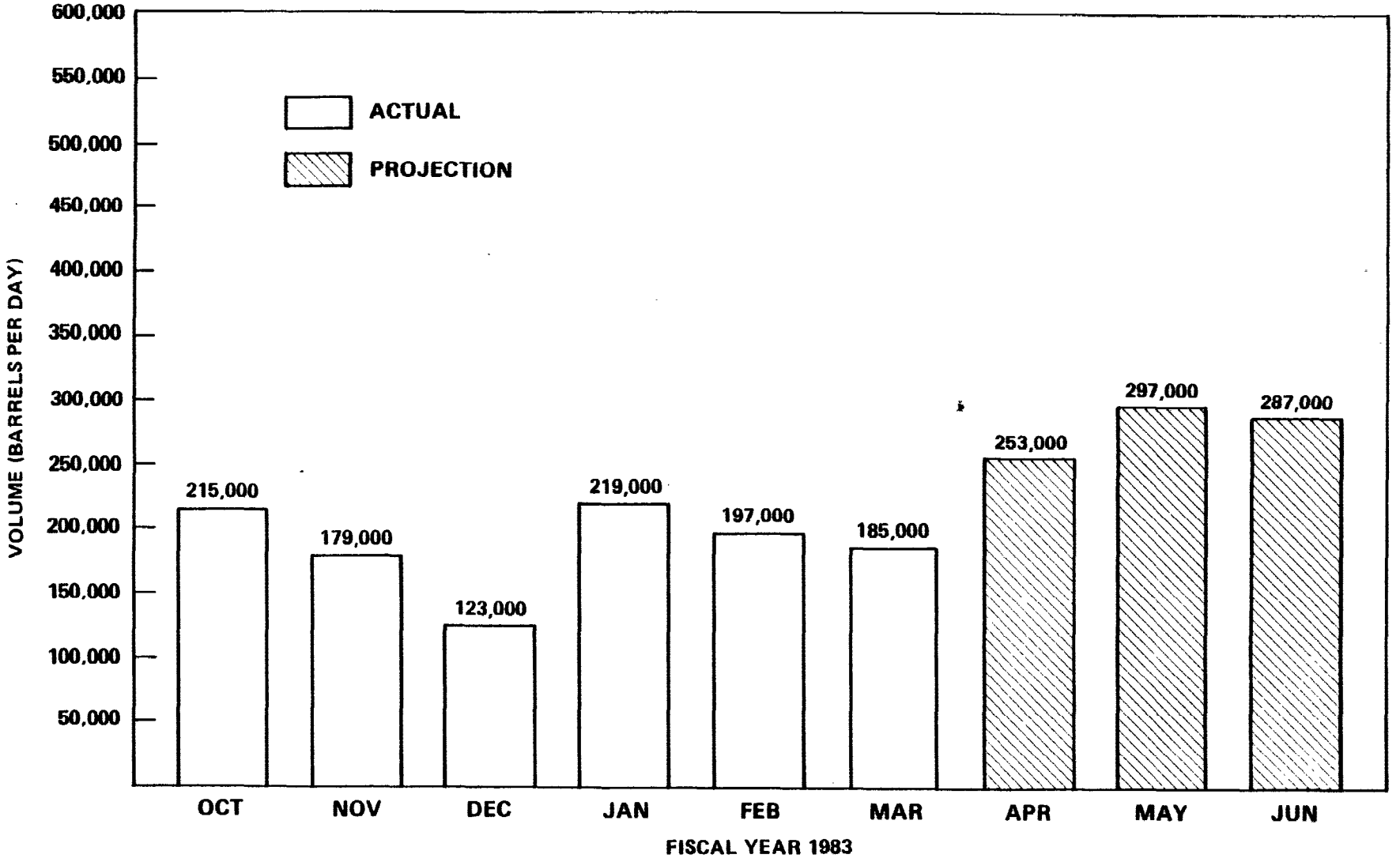
c/Includes approximately $80 million interim storage costs for 22.3 million barrels at $3.60 per barrel.

d/On March 23, 1983, the House passed the First Concurrent Fiscal Year 1984 budget resolution which recommends $1.9 billion for the SPR Petroleum Account.

e/At this fill rate, about $20 million would be used for interim storage cost for about 5.5 million barrels at $3.60 per barrel.

SOURCE: GAO calculations.

FIGURE 2: AVERAGE DAILY SPR RECEIVING RATE[a]



a/ DAILY RECEIVING RATES FOR APRIL, MAY AND JUNE ARE BASED ON DOE PROJECTIONS OF FUTURE DELIVERIES AND ARE SUBJECT TO CHANGE.

ENCLOSURE I

ENCLOSURE I

Table 3
Volume of Oil Stored
By Fiscal Year 1983 Quarter

Quarter	Volume of oil at start of quarter	Deliveries	Volume of oil at end of quarter	Average receiving rate For quarter	Average receiving rate Since 10/01/82
	(millions of barrels)			(barrels per day)	
Oct. 1, 1982 through Dec. 31, 1982	277.9	15.9	293.8	173,288	173,288
Jan. 1, 1983 through Mar. 31, 1983	293.8	18.0	311.8	200,035	186,515

SOURCE: DOE.

Table 4
Summary Of Oil Deliveries
For Fiscal Year 1983

	Oil deliveries for quarter ending 03/31/83	Oil deliveries for FY-1983 as of 03/31/83	Oil under contract as of 03/31/83 (note a)	Oil to be contracted (note b)	Total
	(millions of barrels)				
Open, continuous solicitation (note c)	0	2.8	2.0	14.5	19.3
PEMEX contracts	16.1	24.3	33.9	0	58.2
Term contracts					
Exxon International	0	3.8	0	0	3.8
Transocean Gulf	0.8	1.8	1.8	0	3.6
Citation Oil and Gas	1.1	1.1	0	0	1.1
Naval Petroleum Reserve	(d)	0.1	0	0	0.1
Consent orders (note e)	-	-	-	-	-
Total	18.0	33.9	37.7	14.5	f/ 86.1

a/Represents the amount of oil that is under contract and to be delivered in fiscal 1983.

b/Represents the amount of oil that is expected to be contracted for and delivered in fiscal year 1983.

c/The open, continuous solicitation involves making contract awards without readvertising the solicitation for offers of oil that is available on the "spot", or short-term market.

d/Includes delivery during the quarter of about 30,000 barrels of Naval Petroleum Reserve oil through a memorandum of understanding with DOE's Office of Naval Petroleum and Oil Shale Reserves. The delivery this quarter represents the last deliveries under this agreement.

e/During the quarter, Chaplin Petroleum elected to pay DOE $3.55 million under a consent order rather than deliver oil valued at that amount to the SPR. An additional $3.5 million in either oil or cash remains to be delivered by Chaplin this fiscal year. In addition, a consent order with Conoco, Inc., requires a payment of $11 million in oil or cash by October 25, 1983. No payment has yet been made by Conoco, Inc.

f/Although the total exceeds the 80.3 million barrels needed to achieve the 220,000-barrels-per-day rate, actual deliveries may be lower because of delivery delays, reductions in contract awards under the open, continuous solicitation and changes in prices for PEMEX oil.

SOURCE: DOE and DFSC.

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Table 5
Total SPR Deliveries By Crude Type as of March 31, 1983

	Type I (note a)	Types II-V (note b)	Type VI (note c)	Type VIa (note d)	Maya (note e)	Total
	(millions of barrels)					
Volume delivered	147.3	106.6	31.4	16.6	9.9	311.8
	(percent)					
Percentage of total oil delivered	47	34	10	5	3	f/ 100

a/High-sulfur crude (maximum 1.99-percent sulfur content) with an API gravity range of 30 to 36 degrees. Type I oil includes Arabian Light and Isthmus crudes.

b/High-quality crudes with a light, low-sulfur content (maximum 0.5-percent sulfur content) and with an API gravity range of 30 to 45 degrees. These types include some North Sea and West African crudes.

c/Type VI was established for Alaskan North Slope crude, an intermediate-sulfur crude (maximum 1.25-percent content) with an API gravity range of 26 to 30 degrees.

d/Type VIa was established for the Maya/Isthmus blend under the PEMEX contract. The blend is a high-sulfur mixture with an API gravity of at least 28 degrees.

e/Maya crude is a lower quality oil, which has a maximum sulfur content of 3.5 percent, and an API gravity of at least 22 degrees.

f/Does not add due to rounding.

SOURCE: DOE.

ENCLOSURE I

Table 6
Status of SPR Underground Capacity
As of March 31, 1983

Phase I sites	Permanent capacity available	Capacity filled
	(millions of barrels)	
Bayou Choctaw	45.4	43.9
Bryan Mound	64.8	64.4
Sulphur Mines	26.3	18.4
Weeks Island	72.7	72.7
West Hackberry	48.9	48.9
Total	258.1	248.3
Phase II sites	**Planned capacity**	**Capacity filled**
Bayou Choctaw	10.0	(a)
Bryan Mound	120.0	50.2
West Hackberry	160.0	10.8
Total	290.0	61.0
Total for SPR	548.3	b/ 309.3

a/A newly leached cavern with 4.5 million barrels of usable capacity will be exchanged for an existing 10-million-barrel cavern owned by Allied Chemical Corporation at the Bayou Choctaw site after leaching is completed. DOE currently expects to complete leaching in June 1985. As of March 31, 1983, 1.7 million barrels had been leached.

b/An additional 2.5 million barrels of oil is in pipelines and surge storage tanks. This brings the total oil in the SPR system to 311.8 million barrels.

SOURCE: DOE.

ENCLOSURE I

Table 7
Summary Of Leaching Activities
For Quarter Ending March 31, 1983

	Brine disposal		Cumulative cavern volume		Cumulative oil fill	
	Baseline	Actual	Baseline	Actual	Baseline	Actual
	(thousands of barrels per day)		----------(millions of barrels)----			
Bryan Mound:						
January	900	928	75.3	80.0	31.1	43.0
February	900	961	78.3	83.5	34.1	46.7
March	900	a/ 835	81.3	87.6	37.1	50.2
West Hackberry:						
January	1000	844	50.4	48.3	10.1	10.1
February	1000	871	53.9	52.8	12.0	11.2
March	1000	822	57.3	56.8	14.8	10.8
Bayou Choctaw:						
January	(b)	60	(b)	1.1	(c)	
February		55		1.3		
March		61		1.7		

a/Leaching was suspended for more than 4 days in March due to an oil spill in the brine pond.

b/The baselines for brine disposal and cumulative cavern volumes at Bayou Choctaw are being developed. The baselines are expected to be established in April 1983.

c/The leaching activities at Bayou Choctaw are directed at creating a cavern with 4.5 million barrels of usable capacity. This cavern will not be used to store oil but will be exchanged for an existing 10-million-barrel cavern owned by Allied Chemical Corporation. DOE expects to complete leaching in June 1985.

SOURCE: DOE.

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Table 8
Status Of The SPR Petroleum Account
(As of March 31, 1983 (note a)

Funds made available	Amount (millions)
Carryover from fiscal year 1981	$1,806
Fiscal year 1982 appropriations	3,684
Fiscal year 1983 appropriations	2,074
Total available	$7,564
Funds used or committed	
Fiscal year 1982 payments	$3,687
Estimated fiscal year 1983 payments as of 03/31/83 (note b)	967
DOE's unpaid obligations as of 03/31/83 (note c)	1,315
Total used or committed	5,969
Unobligated funds at DOE	$1,595

a/The SPR Petroleum Account was established in October 1981 to pay for petroleum acquisition and transportation.

b/Amounts of DOE's actual reported payments through February 28, 1983, and DOE's estimated payments for March 1983.

c/Unpaid obligations represents funds that have been committed to pay for future oil deliveries under the first PEMEX contract, or are obligated to DPSC for upcoming oil deliveries or purchases, and expected transportation costs. DPSC reports that of the funds obligated to it, about $650 million is available for future purchases.

SOURCE: DOE and DPSC.

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Table 9
Status of DFSC Collection Efforts

Contractor	Claim amount	Status
Amerada Hess	$ 944,508.94	Contracting officer's decision issued Jan. 20, 1983. (note a)
Amoco	275,693.70	Collected.
Atlantic Richfield	201,400.60	Offset $211,329.65 (including interest) on Dec. 30, 1982. Atlantic Richfield appealed decision on Jan. 12, 1983. (note b)
Chevron U.S.A., Inc.	150,448.20	Collected $159,339.87 (including interest) on Jan. 21, 1983.
Coastal States Trading	523,755.04	Offset $555,586.25 on Jan. 11, 1983. Coastal States appealed the decision on Jan. 7, 1983.
Coral Petroleum	412,477.17	Offset amount on Nov. 1, 1982. Coral appealed decision on Dec. 20, 1982.
Derby	4,930,251.52	Derby appealed decision on June 28, 1982.
Exxon U.S.A.	911,405.09	Collected.
Houston Oil and Refining	1,893,773.61	Action to collect in process. Houston Oil and Refining appealed decision on Jan. 3, 1983.
Listo Energy, Inc.	592,232.36	Action to collect in process.
U.S.A. Petrochem	364,948.03	Action to collect in process.
U.S. and S.A. Enterprises, Inc.	2,628,350.76	Action to collect in process. U.S. and S.A. appealed decision on Dec. 23, 1982.

a/If a company disagrees with DFSC's determination, it has 90 days in which to appeal to the Armed Services Board of Contract Appeals and a year to appeal to the U.S. Court of Claims.

b/In some cases, to obtain repayment, DFSC may offset the overpayment by reducing the amount paid on another contract the company has with DFSC.

SOURCE: DFSC.